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31 July 1985

USSR Report

AGRICULTURE

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MAJOR CROP PROGRESS AND WEATHER REPORTING

FIELD WORK CONDITIONS IN ORENBURG OBLAST

Moscow SELSKAYA ZHIZN in Russian 19 May 85 p 1

[Article by Correspondent I. Gavrilenko of Orenburg Oblast: "Tactic for the Fields of Orenburg Oblast"]

[Excerpts] We stopped at the edge of a field where the weather station workers were taking soil samples. We were interested in knowing: is there much moisture in the soil?

"So far, more than usual. No precipitation is expected. As you can see, we don't even take our raincoats into the fields."

Just a little farther than the place where we had our conversation, the winter crops stretched out. The field looked succulently green, however; one of its borders, adjoining a strip of forest, looked dark. This was easy to explain. April had been cold, the snows did not drain as they melted, and stagnant pools of water had formed in the northern section of the rye field. And now a dry wind was blowing over the plain that could remove tens of tons of moisture from the soil in a 24-hour period.

By this picture one can judge how difficult the problems are that the Orenburg farmers have to solve even in this, generally favorable for farmers spring. Different factors act at the same time.

"Petr Timofeyevich," I asked the first secretary of the Ileksiy rayon party committee, Kazankin, "What tactic are the rayon farmers using now?"

"There is only one objective," answered the secretary. "To retain moisture in every conceivable way. We are squeezing in the field operation time periods so that, despite the late spring, we can complete planting at early periods. We rely on the specialists for everything else. In such a spring as this one, success may be ensured only by a specialist who, depending on the developing situation, knows how to make the correct decision and to assume the responsibility for selecting the proper agricultural technique. Judge for yourself: three of our kolkhozes have already completed planting, and on that side of the Ural the planting machine units were

unable to go out into the fields for a long time because of wetness. Under such conditions, acting in a routine way is quite foolish."

Without having to move, the machine operators from the contracted collectives conduct the planting of almost all the oblast zones. In all, they have planted 98 percent of the grain crops, or about 3.7 million hectares, and this is far more than last year. The planting tempos are constantly increasing. The efforts of the machine operators on the virgin soil of the eastern part of the oblast deserve special mention. The farmers of this zone started field operations when many rayons to the south and in the center of the oblast had already finished planting grain. The cold rains, at times changing to wet snow, and the morning frosts made the problem more difficult. Virgin soil farmers, however, overcome difficulties. By persistently fighting for each working minute, they managed to eliminate the time lag and now are placing seeds into the soil at the time periods, determined by many years of practice.

I had a conversation with V. D. Khopreninov, director of the Svetlinskiy Sovkhoz imeni 19th Party Congress.

He said, "We have already completed planting 5,000 of the 12,000 hectares. The no-till machines, which perform several agricultural procedures in one pass over a field, have been of great help. Fertilizer is introduced only to ensure moisture of the soil, and the moisture in our soil now is adequate."

Here is a detail: at other farms, acting on the principle that "butter will not spoil the porridge", the farmers try to push into the soil all the fertilizers available in stock without taking the special characteristics of a field into account. Then, they are surprised at the low yield. However, in the Sovkhoz imeni 19th Party Congress the farmers act economically. As a result, the five-year plan for seed purchases has already been fulfilled, and this summer they hope to carry out the sixth year goal.

Many sovkhozes are conducting plantings at good tempos but, due to this, the operations in Severnyy, Matveyevskiy and Kvarkenskiy Rayons have been delayed. On the whole, farmers of the oblast have been planting seeds into the soil daily over an area of more than 200,000 hectares.

It should be noted: everywhere the yields of labor have increased. But, there are unfortunate blunders. Primarily, this refers to the wheat fields. At present, the plans are to purchase 300,000 tons of strong varieties of wheat and 400,000 ton of durum wheat. However, has everything been done to carry out these plans? Probably, not. In the Sovkhoz imeni Gagarin, where there have been some losses due to pests and diseases, progressive forms of treatment have been used only on sunflower and corn seeds, and the wheat seeds have gone untreated as usual, thinking that everything will be fine anyhow.

The successes of the collective at the "Anikhovskiy" Sovkhoz are well known; it is here that "Khar'kovskaya-46" hard wheat is planted and excellent seed is produced that brings in considerable sums for its sale at higher prices. The "Khar'kovskaya-46" will cover about five thousand hectares this year as well. However, coating of the seeds will be conducted on a scale satisfying only one fifth of the demand due to shortage of materials over which the sovkhoz has no control.

The change to intensive technology has increased the demand for mineral fertilizers. Meanwhile, the situation in filling the orders of the kolkhozes and sovkhozes for chemicals is still not good. "Sel'skaya zhizn'" has already written about the irregularities in supplying Orenburg with mineral fertilizers. Now, to correct the earlier admitted errors, the suppliers send 50 truckloads of different fertilizers daily into the oblast. But, at this peak time, where does one get people to unload the fertilizers, how can one get along without trucks, which have to be rushed to the stations over hundreds of kilometers? Can't part of these concerns be shifted to Sel'khozkhimiya.

More than 3.8 million hectares of arable land are to be planted in Orenburg Oblast. Work is now proceeding on the third million of hectares.

12525
CSO: 1824/375

MAJOR CROP PROGRESS AND WEATHER REPORTING

RSFSR AGRICULTURE MINISTRY OFFICIAL ON SPRING SOWING

LD142029 Moscow Domestic Service in Russian 1800 GMT 14 May 85

[Text] Spring crops have been sown on over 35.5 million hectares on Russian federation sovkhozes and kolkhozes. This was reported today by the republic's statistical service. Commenting on this news, Aleksandr Petrovich Osadchuk, head of the main directorate for arable farming of the RSFSR Ministry of Agriculture, noted that by the beginning of this week the plan for the sowing of spring crops had been 45 percent completed. The mass sowing front has now shifted to the east, where the main food crop, spring wheat, is to be sown on large areas during the days immediately ahead. However, weather conditions have markedly deteriorated in a number of regions there, particularly in West Siberia. Snow has even fallen in places. In the republic as a whole, two-thirds of the barley and legumes area has now been sown. A quarter of the millet area has been sown. Sowing of late row crops--sunflower, corn and sugar beets--is now nearing completion. This week farms in the far east began work on fields allocated to soya, the latest crop.

CSO: 1824/460

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW REPORTS AGRICULTURAL DEVELOPMENTS FOR 15 MAY-8 JULY

15-17 May

LD190610 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service and Moscow Television Service in Russian on 15-17 May. Times of broadcast are given in parentheses at the end of each item.

15 May

As a result of a spell of severe weather in Kirghizia on 13 and 14 May, frosts, snow and strong winds in the Chu and Talas Valleys and the Issyk-Kul Depression have killed already grown or transplanted vegetables and the shoots of potatoes and corn. The fruit and grape crop has been almost completely destroyed. Perennial grasses have suffered and grain has been flattened. Urgent measures are being taken to deal with the situation: soil is being prepared on the farms for resowing vegetables; seeds and fertilizers are being brought in; potatoes are being cultivated; and the flattened bread grain will be watered and fed. (0001 GMT)

Sowing of early cereals and annual grasses is ending in Mordovia. (1200 GMT)

Kurgan Oblast has started planting potatoes. (1200 GMT)

In Chechen-Ingushetiya haymaking has started. (1200 GMT)

16 May

Kirgizia has completed sowing of beet for feed. It occupied 12,000 hectares. (0430 GMT)

Farms in the Crimea have begun harvesting green feed crops--rape and alfalfa. (0730 GMT)

Farmers in Chechen-Ingushetia have completed the sowing of spring crops in spite of the late spring. Corn sowing is being completed here today. This year farmers in the republic plan to greatly exceed the target of 500,000 metric tons for gross production of grain. (0800 GMT)

In Saratov Oblast 4.5 million hectares of land has been sowed with spring crops, of which 800,000 hectares, growing mainly millet, is being intensively

cultivated. Farmers in Altay Kray have managed to sow only 500,000 hectares so far, due to the late start. This is only 10 percent of the total spring sowing area and is considerably behind last year's sowing schedule. Tselinogram Oblast farmers are using intensive methods on 900,000 hectares of wheat. (1100 GMT)

Farmers in Omsk Oblast have begun sowing of wheat. Almost half of the grain crop area, 1.1 million hectares, is being cultivated using intensive technology this spring. (2330 GMT)

17 May

Wheat sowing has begun in Omsk Oblast. (0400 GMT)

Dagestan has begun harvesting alfalfa. The crop covers 80,000 hectares here. Three-quarters of it is being grown on irrigated land. (0400 GMT)

Mass sowing of potatoes began in Mari Assr today. The crop is to be sown on over 30,000 hectares. (0600 GMT)

Turkmenia's farmers intend to procure 800,000 metric tons of livestock feed this year. Harvesting of feed is in progress in Krasnovodsk Oblast, Ashkhabad Oblast, and Chardzhou Oblast. (0600 GMT)

The mass sowing of spring wheat by intensive methods has begun in the Altay. The work is being facilitated by settled, warm, and sunny weather. Equipment is able to work in the fields for 15-17 hours a day. (0700 GMT)

Cereal sowing is in its final stages in Orenburg Oblast. Seeds have been sown on 3 million hectares, and half of the oblast's rayons have already finished sowing. (0800 GMT)

Farmers in the Mari Nonchernozem Zone today began mass potato planting. More than 30,000 hectares of potatoes are to be planted in the Assr. (0800 GMT)

Ukraine farmers are completing rice sowing. In Odessa, Krym, and Kherson Oblasts rice occupies about 35,000 hectares. (1030 GMT)

Sowing of spring wheat has begun in Kulunda Steppe Region today. The grain field area of Altay will occupy more than 4 million hectares this year. The main part of it is given over the strong and hard types of wheat. What will be grown using intensive technology on more than 1 million hectares. This will make it possible to obtain a 5-quintal increase on every hectare. (1100 GMT)

Farmers of Ukraine today completed sowing of grain corn. It has been sown on an area of almost 2 million hectares. (1100 GMT)

Mass sowing of grain crops is underway in the Altay. The kray's grain area will now occupy over 4 million hectares. (1200 GMT)

Spring crops have been sown on 500,000 hectares to date in Tselinograd Oblast. (2230 GMT)

29 May-1 June

LD020300 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 29 May-1 June 1985. Times of broadcasts are given in parentheses at the end of each item.

29 May

Moldavia: Harvesting and procurement of early feed crops is underway. The alfalfa yield is reaching 200 quintals/hectare. (2300 GMT)

30 May

IZVESTIYA reports that in the last week spring crops were sown on more than 26,000,000 hectares. Rates in the virgin lands were particularly good: in Kazakhstan's Turgay Oblast about 70 percent of the area allotted for grain crops was sown in 7 days. (0500 GMT)

Sowing of spring wheat was completed today in Altay on an area of 2,700,000 hectares, of which almost half was sown using intensive technology; almost all the area was sown with new regionally adapted [rayonirovannyye] varieties of hard, strong and valuable wheat. Sowing of millet and buckwheat continues here. Care of sown crops is now taking place on wheat and beet-growing areas. (1500 GMT)

Massive hay harvesting continues in Stavropol Kray. Farms of Brest Oblast started massive harvesting of early-ripening grasses. The plan envisages procurement of 300,000 metric tons of hay during the first harvesting in the whole republic of Belorussia. (1530 GMT)

Sowing of wheat is coming to an end in Omsk Oblast. In the oblast, 1,100,000 hectares is sown to wheat, which is almost one-half of the total grain acreage. (1530 GMT)

Rice farmers of the Kara-Kalpak Assr started flooding the last 10,000 hectares of sowing area. They pledged to finish it by 1 June. (1530 GMT)

Farmers of Nikolayev Oblast are to cut the fleece of 40,000 sheep. (1530 GMT)

Azerbaijani farmers pledged to obtain at least two harvests of vegetables from each hectare. (1530 GMT)

Production of a new trailer combine have been mastered in the Gomselmash association. It is highly efficient and makes it possible to harvest not only grasses but also corn and sunflower. Cutting and mincing units, as well as hydrosystem elements of the new combine are absolutely compatible with those of the old KSK-100 combine. (1530 GMT)

Altay farmers have completed spring wheat sowing--the total area covered is 2,700,000 hectares, half of which was sown by intensive methods. (1950 GMT)

31 May

Tuva farmers ended sowing grain crops today; wheat, oats and buckwheat occupy an area of 150,000 hectares. Potato planting and sowing of feed crops for public livestock are now coming to an end in the republic. (0001 GMT)

Omsk Oblast farmers are completing sowing on 2,000,000 hectares. (0200 GMT)

Hay-mowing has started in Amur Oblast significantly earlier than usual; for the moment it is being done on a selective basis. (0204 GMT)

Kiev--The mass-scale irrigation season has started in the Ukraine. Irrigators provide water to about 100,000 hectares of land every day. The area of irrigated lands is now almost 2,500,000 hectares. In conformity with the long-term plan for irrigation, by the year 2000 the area of irrigated land in the republic will almost double, while water supply in the south of the republic will be significantly improved. (1000 GMT)

Omsk Oblast is sowing on its third million hectares, the last; May's cold weather has seriously affected the germination capacity of many crops, wheat in particular. Thus, additional agro-technical measures are being adopted to speed up the growth of shoots. (2230 GMT)

1 June

Bryansk Oblast farmers are completing potato planting today; more than 115,000 hectares are given to this crop there. (0200 GMT)

Silk cocoon gathering is underway on Uzbekistan farms. The republic's light industry alone manufactures more than 120,000,000 sq m of silk fabric. (0200 GMT)

2-4 June

LD050259 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 2-4 June. Times of broadcasts are given in parentheses at the end of each item.

2 June

Omsk Oblast farmers are completing grain sowing on 2 million hectares. (0204 GMT)

The papers report on feed procurement work: haymowing is underway in the Kuban on 500,000 hectares. (0500 GMT)

Filling of the Vilyaz-chai Reservoir has started in the souther Azerbaijan. It will start irrigating fields this year. The reservoir will provide water to irrigate 11,500 hectares. Irrigation canals have been built. At present 80 percent of Azerbaijan's agricultural output is grown on irrigated land. Their return over the 15-year period has grown almost 20 percent. (1000 GMT)

Rice has been sown on almost 48,000 hectares in Astrakhan Oblast. (1300 GMT)

3 June

Belorussia ends sowing of fodder peas. (1100 GMT)

An agricultural machinery repair center has been commissioned in Magramyanskiy Rayon, capable of annually overhauling over 300 tractors, combine harvestors, and other machines. Another three such centers will be commissioned in other rayons by the end of the year, thereby giving every rayon its own repair center. (1100 GMT)

4 June

Bashkiriya: more than 3 million hectares have been sown with spring crops. (0400 GMT)

Crimea: haylage and early silage are being procured. (0400 GMT)

Kazakhstan farmers have sown crops on the huge area of 28.2 million hectares. This was reported today by the republic's statistical directorate. Thus, the work on the summer crop acreage is practically finished. The plan for sowing of wheat, barley, and other crops has been exceeded. Crops are presently being tended on farms throughout Kazakhstan. Farmers are adopting every measure to make each hectare of arable land yield a good crop. Hundreds of sovkhozes and kolkhozes have taken enhanced pledges for output of produce. (1000 GMT)

Yakutiya agricultural workers have completed sowing grain crops and potato planting; cabbage planting began today. (1530 GMT)

Spring crop sowing is coming to an end in Bashkiriya. (1530 GMT)

Spring sowing is drawing to a close in the RSFSR. The republican CSD today issued date on this. Comrade Asadchuk, head of the main administration for land husbandry of the RSFSR Ministry of Agriculture, commenting on this data at our request, noted that by the start of this week seeds of various crops had been sown on an area 70 million hectares. The sowing plan has been 92 percent fulfilled. Spring wheat has been sown on 98 percent of the area allocated to it. Sowing has been completed of grain crops due to be cultivated by intensive technology. All of the elements of this were being carefully observed. The plans for the sowing of rice, sugar beet, and sunflower has been fulfilled. The area sown to corn for grain has been considerably increased. Sowing of grain crops is continuing in the Urals and in Siberia and of soya in the Far East. Planting of potatoes is nearing completion in the non-Chernozem Zone. (1800 GMT)

Sowing of the main agricultural crops has been completed in Irkutsk Oblast. Grain crops have been sown to almost 900,000 hectares this year. (1904 GMT)

Breadgrain growers are tending their crops in Altay, paying most attention to fields where crops are being cultivated using intensive techniques. This covers 1.2 million hectares, almost half the wheat area. (2004 GMT)

Winter cereals have been reaped from the first 10,000 hectares in Ashkhabad Oblast of Turkmenistan. We note that harvesting work in the republic is being delayed because of a poor level of preparation of equipment. More than 140 combines failed to get into the fields of Ashkhabad Oblast, with just 70 percent of harvesting units being used. The same picture is to be observed in a number of farms in Mary and Chardzhou Oblasts. (2004 GMT)

5-6 June

LD070333 {Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 5-6 June. Times of broadcasts are given in parentheses at the end of each item.

5 June

Potato planting is drawing to a close. Almost 3 million hectares have been planted to potatoes. The last work is being carried out on northern fields and in Siberia; some 200,000 hectares remain (to be planted). At each farm machine operators now have to invent and make various implements themselves. For to cultivate potatoes in conditions of comprehensive, i.e. complete, mechanization, 57 different machines and implements are required, while industry turns out only 24. (0100 GMT)

Spring crop sowing is drawing to a close on the fields of the RSFSR. According to the RSFSR CSD, by the beginning of this week seeds of various crops had been sown to 70 million hectares which is 92 percent of the area. Grain crops, which are to be cultivated in accordance with intensive technology, have been sown in full. In the RSFSR plans for sowing rice, sugar beet and sunflower have been coped with. Plantations under grain corn have been considerably expanded. Grain crop sowing is presently continuing in the Urals and Siberia. Soya sowing is continuing in the Far East. Potato planting is drawing to a close in the nonchernozem zone. (0200 GMT)

Azerbaijan: reaping of grain has begun. (0400 GMT)

Kazakhstan: Chimkent Oblast machine operators have carried out first cutting of alfalfa. (0400 GMT)

Ryazan Oblast: potato planting completed. (0400 GMT)

Abundant rain in the Ukraine has helped the growth of the beet crop. This is particularly true of Vinnitsa, Cherkassy, and Kiev Oblasts. Inter-row tilling is being done for the third or fourth time. Beet is planted on 1.2 million hectares in the republic. New techniques have increased the yield by 36 quintals per hectare per annum since the beginning of the 5-year plan. (0800 GMT)

Grain crops have been sown on almost 900,000 hectares in Irkutsk Oblast. (1530 GMT)

6 June

Orenburg Oblast farms have begun procurement of fodder. (0400 GMT)

Harvest of winter wheat and barley started in Azerbaijan today. Republic's grain producers have pledged to sell 50,000 metric tons of grain above the plan to the state. (1530 GMT)

The grain crops in southern Belorussia are growing well. They are providing stable grain yields in the Belorussian nonchernozem zone. To prevent the grain crops from lodging, scientists have come up with a new plant growth regulator called (?khampozan) which reduces stem length. It has been applied by aerial spraying to a considerable part of the area sown to winter crops. (2104 GMT)

Kirghizia's fodder procurement workers have harvested fodder from more than 100,000 hectares thus far. (2230 GMT)

Grasses have been cut on an area of more than 100,000 hectares to date in Kirghizia. (2300 GMT)

7-9 June

LD100045 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 7-9 June. Times of broadcasts are given in parentheses at the end of each item.

7 June

Mari nonchernozem zone: Fodder procurement has begun. (0400 GMT)

Chechen-Ingushetiya: fodder procurement shock month has begun. (0400 GMT)

Harvesting has begun in the south of the country. Harvesting of grain is taking place in five union republics in central Asia and Trans-Caucasia. Equipment is being used efficiently in Turkmenistan. However, many machines in Turkmenistan are not prepared for the harvest. In Ashkhabad Oblast alone 140 combines were unable to take to the fields. There are enough grain-harvesting combines in the country as a whole, but they are not always used efficiently. The harvest has begun in republics that border on Turkmenistan. However, not all combines have been repaired there either. The main reason is the inability of heads of individual kolkhozes and sovkhozes to organize efficient and punctual repairs. Some factories that supply spare parts are also letting their customers down. (1100 GMT)

There has been much talk recently of the stationary method of threshing grain and other agricultural crops. This method is used in the Kuban. The combine does not work in the field but operates at the threshing floor, threshing wheat and other crops on the spot without moving about. The Taganrog combine works is currently working on the design of highly productive threshers suitable for use in this way. The stationary method is also being tested in Kazakhstan, Siberia, and the nonchernozem zone of the RSFSR and the Ukraine. It has a bright future and should be very beneficial. However, mass application of this method has not yet come about. (1100 GMT)

8 June

Chimkent Oblast elevators are ready to take the new harvest. The equipment has been reconstructed for the new season. The enterprises' handling capacity

has been increased by a third thanks to rejigging of the grain reception lines. Each elevator can now unload the heaviest road trains in 5 minutes. (0001 GMT)

Sowing of soya in Amur Oblast has been completed. The area exceeds 400,000 hectares. Farmers of the Amur pledge to sell the state 180,000 tons of grain this year. (0001 GMT)

S. Uzbekistan: harvesting of cereals starts. (0400 GMT)

Buckwheat sowing in Tataria is being completed. The crop occupies 80,000 hectares and is all of a local variety, the kazan large-grained variety. (0600 GMT)

Mowing of grass in the Ukraine has been carried out on 2 million hectares. The best perennial and meadow grasses of the first mowing will be made into hay; the remainder will be processed into grass meal. (1100 GMT)

Surkhan-Darya Oblast, Uzbekistan: farmers began selling grain to the state. (1800 GMT)

Bashkir farmers carrying out sugar beet inter-row cultivation: sugar beet covers almost 80,000 hectares of the best lands in Bashkiria. (1800 GMT)

Chimkent Oblast, Kazakhstan: alfalfa cutting under way. (1800 GMT)

Termez: S. Uzbek grain harvest has started coming in. The republic's farms intend to sell 1.2 million tons of grain to the state this year. (2300 GMT)

9 June

A new irrigation system has been commissioned in Bolnisi Rayon. Georgia's leading supplier of potatoes of the early varieties. It has enabled all the potato fields of the rayon's farms to be irrigated. The time for lifting early potatoes has now come in the republic. The first batches of the crops have been unloaded in Tbilisi and Rustavi. They will be available to workers of Moscow and other northern cities within the next few days. (0004 GMT)

Georgian grain farmers have started reaping barley. (0400 GMT)

10-12 June

LD130457 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian 10-12 June. Times of broadcasts are given in parentheses at the end of each item.

10 June

Plowing of fallows has been finished in the Ukraine. (0400 GMT)

11 June

Ashkhabad--The first 1,000 tons of winter cereals have been harvested in Turkmenia; harvesting of barley has been finished by most farms of Ashkhabad Oblast; on a number of farms of Mary, Chardzhou Oblasts, reaping of wheat has started. (0400 GMT)

12 June

Dushanbe--Reaping of grain has started in a number of Tajikistan's rayons. Over 180,000 hectares are to be harvested. In the republic, grain crops are being cultivated mainly on nonirrigated tracts on steep mountain slopes. Cotton occupies over 300,000 hectares of the best irrigated lands. Specialists say that, as a whole, crops are in a fairly good condition. Spring rains and hail have forced the machine operators to resow cotton on large areas. To obtain only 2 metric tons of raw cotton, almost 10,000 metric tons of water have to be consumed. Tajik farmers have pledged to procure 910,000 metric tons of raw cotton in 1985. (1145 GMT)

Minsk--This year, Belorussia is to produce and procure feed at a level 15 percent higher than the 1984 level. Today, haymaking is proceeding not worse than in 1984. Potatoes cover 350,000 hectares in Belorussia. Conditions for development of potatoes are satisfactory, although in the southeast there is a shortage of moisture. (1145 GMT)

In Altay Kray, 21,000 of "Sibiryak" and "Niva" combines are ready for harvesting, which is 85 percent of the entire fleet of combines in Theikray. (1530 GMT)

Sowing of rice completed in Dagestan. (1530 GMT)

Harvesting of potatoes started in Turkmenistan. (1530 GMT)

Farmers of Belgorod Oblast have started the third watering of areas under crops. Irrigated lands here occupy over 50,000 hectares. (1530 GMT)

Kazakh farmers procure feed. (1800 GMT)

Harvesting of barley has begun on sovkhozes on the virgin soil of Kulyab Oblast in Tajikistan. Grains are being harvested in other areas of the republic. (2005 GMT)

13-15 June

LD160348 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 13-15 June. Times of broadcasts are given in parentheses at the end of each item.

13 June

Cereal harvesting has begun in Tashkent and Dzhizak Oblasts. (2230 GMT)

Dagestan--named rayons have begun harvesting cereals. (2230 GMT)

Construction of the great Alma-Ata Canal is nearing its end. Water will soon flow along its entire length and irrigate much farmland. (2230 GMT)

The first inter-row cultivation of corn sown for grain in Saratov Oblast has ended. The area the crop now occupies 180,000 hectares. Hybrid, early-ripening, high-yield varieties are being used at present. (1530 GMT)

Thinning, weeding, and inter-row cultivation has now been carried out on half the sugar-beet plantations in Latvia. (1530 GMT)

Reportage by Ukrainian correspondent on exhibition in Kiev of latest agricultural machinery by the all-Union scientific research and design technology for machines for the comprehensive mechanization of livestock farming at Kiev. (1530 GMT)

Bread grains have begun to be harvested in the mountainous areas of Kirghizia. Some farms have a yield of up to 50 q/ha. The harvest looks good in the Kulyab Oblast of Tadzhikistan. Bread grains are reaching the granaries from Azerbaijan and Georgia. (2000 GMT)

Kuban--approximately 18,000 combines, over 90 percent of the total fleet, are ready for harvesting. (1904 GMT)

Altay--21,000 "Sibiryak" and "Niva" combines, over 85 percent of the total fleet, are ready for harvest. (1904 GMT)

Potato-planting begun on White Sea shores. Area allocated is over 11,000 ha in Arkhangelsk Oblast. (1904 GMT)

Harvesting of barley and wheat has begun in high-altitude areas of Kirzhizia, where yields of up to 50 q/ha are being obtained. (1100 GMT)

Moldavia--all facilities are ready for forthcoming harvest. (1100 GMT)

Saratov Oblast corn tending in progress. (1100 GMT)

Krasnador--rose petal harvest in progress. (1100 GMT)

15 June

All agricultural machinery in the Belgorod Oblast reported ready for harvesting. (0700 GMT)

16-19 June

LD200144 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 16-19 June. Times of broadcasts are given in parentheses at the end of each item.

16 June

In Central Asia and Transcaucasia, winter barley and wheat are being cut. In the south, mass harvesting of vegetables and early fruit and berries is under way. But feed procurement is the main operation at the moment. The northern frontier of haymaking is now in the center of the non-chernozem zone, and further north the grasses are ripening fast, so harvesting will begin in a day or two. Reportage from "Lenin" collective farm, Vladimir Oblast, which has coped well with the bad winter. Good harvests are obtained by sowing mixed grasses only. (0600 GMT)

Strong wheats cover 50,000 ha in Moldavia. (1530 GMT)

17 June

Kursk Oblast--Sown and natural grasses have been cut on the first 100,000 ha, almost half the area of hayfields. More than 8,000 t of hay has been stacked in ricks--more than triple the amount at the same time last year. (1300 GMT)

Kirghizia--perennial grasses have been harvested from 200,000 ha in the republic so far; in all, mowing will take place on 370,000 ha. (1330 GMT)

Grain harvesting has started in Kazakhstan. (1800 GMT)

18 June

Rice sowing has been completed in the RSFSR on the total area--317,000 ha. About half of this area is in Krasnodar Kray. (1300 GMT)

RSFSR farmers finish rice-sowing throughout the republic. (1800 GMT)

Kuybyshev Oblast is busy with feed preparation. (1800 GMT)

Harvest preparations completed in Stavropol Kray: over 14,000 combines will participate. The grain-growers of the kray are pledged to sell the state 2 million t of grain. (2304 GMT)

19 June

Inspection of readiness of harvesting equipment completed in steppe and foot-hill rayons of N. Ossetiya. (0001 GMT)

Uzbek farms have begun sales of above-plan grain to the state. Harvest is ending in south of republic. (0204 GMT)

Second sowing of annual grasses is being prepared in the Stavropol Kray on the area of over 400,000 ha. Due to bad weather conditions, hay harvest on lands usually sown to grasses has been lower than planned. It has been decided to sow silo and hay crops additionally to a considerable part of the lands which would be free after early cereals are harvested. (1100 GMT)

Kuban farms have completed the first cutting of perennial grasses; alfalfa cutting is now under way; feed procurers have stored about 300,000 t of hay for the winter with the first cutting of grasses. (1530 GMT)

Tuva mechanizers have to harvest more than 132,000 ha of meadow-sown and perennial grasses. (1530 GMT)

Altay mechanizers have worked 1 million ha of fallow land to eliminated weeds; fertilizers are now being applied on the area so that by autumn all the fields will be ready for growing crops such as wheat and sugar beet using intensive technology methods. (1530 GMT)

20-24 June

LD250410 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 20-24 June. Times of broadcasts are given in parentheses at the end of each item.

20 June

Cereals have been reaped on 100,000 hectares to date in Uzbekistan. Irrigated land in Fergana Oblast is giving average yields of 40 quintals per hectare. On dry farmland, which comprises four-fifths of the area under grain in the republic, harvesting is proceeding more slowly. Though the crops have ripened, only 2,800 of 5,000 combines are working in the fields, the Ministry of Agriculture reports. (0200 GMT)

According to the CSA of the USSR, sown and natural grasses have been cut in collective and state farms from an area of almost 14 million hectares nationwide. Six million metric tons of hay have been procured. (0600 GMT)

Reportage on hay mowing at a named farm: "As we were told in the USSR Ministry of Agriculture, as of 17 June, in the country grasses have been cut on almost 4 million [as heard] hectares; 1,323,000 metric tons of hay, 337,000 metric tons of grass meal and 2,150,000 metric tons of haylage have been laid in. (0800 GMT)

Harvesting of vegetable seed crops has begun in south Uzbekistan. This year it is planned to procure 20,000 quintals of highly-conditioned seeds of vegetable, melons, gourds, and feed crops, which is 5,000 quintals more than last year. (1300 GMT)

21 June

Cereal harvesting has begun in northern Leninabad Oblast. Winter cereals occupy over 180,000 hectares in the Tajik Republic. (0200 GMT)

Harvesting of perennial grasses has begun in the Mari nonchernozem zone. (0600 GMT)

Omsk Oblast: cutting of sown and natural grasses has started. (1530 GMT)

Massive sowing of buckwheat has started in Maritime Kray. (1800 GMT)

22 June

South Uzbekistan is harvesting above-plan grain. (0400 GMT)

Omsk Oblast haymaking is underway. (0400 GMT)

A TASS correspondent reports from Uzbekistan: a broad area of land in the north of Kashka-Darya Oblast has become a zone of guaranteed harvests. With the commissioning for agriculture of 270,000 hectares of virgin land, the first sector of the second stage of the assimilation of the Karshi Steppe has been conquered. A new state farm No 51 has been set up there. The farm is so far the only one on a territory covering over 100,000 hectares. In the future, 22 specialized farms will be built: at present their central areas are having their foundations laid. In accordance with the design, hydro-technical installations are also being erected. Altogether since the start of the year 17,000 hectares of new irrigated land have started working for the harvest. (0600 GMT)

Tajistan: All the cotton-clearing enterprises are ready for the new harvest. General reconstruction of the last of them, Tursunzade, was completed today. This season, more than a million metric tons of new-harvest raw cotton will be received and processed. (1100 GMT)

The fodder shops of Lithuania are now operating on the waste-free production system. A network of fodder-procurement complexes for the interfarm associations, the total area of which exceeds 20,000 hectares, is being set up. (1100 GMT)

23 June

No monitored reports merited processing.

24 June

First grass cutting has begun in meadows along the Irtysh in Omsk Oblast. (0400 GMT)

Belorussia: Haymaking on the second million hectares is under way. (1100 GMT)

The second sowing of corn for grain has started in south Turkmenistan. Second sowing of vegetable crops has started on the fields of eastern Georgia that become free after the harvesting of potatoes and early vegetables. (1200 GMT)

Farmers of the south and eastern regions of Rostov Oblast today began selective harvesting of winter wheat. Don farmers are to sell to the state no less than 1 million metric tons of valuable varieties of grain this season in spite of unfavorable weather conditions. (1300 GMT)

Farmers in Kazakhstan have been bringing in feed crops. There are more than 30 million hectares of grasses to be harvested in the republic, of which more than 2 million have been cut and laid in ricks. (1530 GMT)

27-29 June

LD300236 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 27-29 June. Times of broadcasts are given in parentheses at the end of each item.

27 June

Lately, as figures from the statistical summaries obtained by the editorial office show, the rate of fodder preparation has increased notably on collective and state farms. Thus, in the past week in Lithuania one-third of the planned amount of hay and haylage has been laid in. The fodder preparation detachments of Latvia, Belorussia and the Ukraine are working with great productivity. On sunny days hay is being laid in. On rainy days it is haylage and early silage. Preservatives are being widely used to maintain the quality of the fodder. Countrywide, more than 10 million tons of hay has been laid in and more than 20 million tons of haylage. However, as specialists at the USSR Ministry of Agriculture note, the period of the first mowing of grasses has been prolonged on many collective and state farms. This will complicate the second and third mowings. (0204 GMT)

Omsk Oblast fodder harvest is in full swing. We remind you that altogether in the country by 24 June sown and natural grasses had been reaped on almost 28 million hectares. Ten million tons of hay, 9.5 million tons of haylage, 1.7 million tons of grass meal and other artificial dehydrated green fodder has been laid in. (1100 GMT)

28 June

Hay-mowing is beginning in Yakutia: More than 500,000 tons of hay, about 200,000 tons of silage and other fodder crops are to be prepared. (0001 GMT)

The Astrakhan tomato crop has ripened: It is projected to harvest over 500,000 tons of tomatoes and other vegetables this year. (2304 GMT)

29 June

Peas and winter barley being harvested in Moldavia. (1800 GMT)

30 June-3 July

LD040131 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 30 June-3 July. Times of broadcasts are given in parentheses at the end of each item.

30 June

Harvesting of grain began today in Crimea and Odessa Oblasts. (1300 GMT)

Fodder beet has been sown in a plantation of a total of almost 2,000 km in length in Khorezm Oblast, Uzbekistan, on the banks of the canals and drainage intercepting ditches. Such crops yield rich harvests on such lands: in the current season, 10,000 tons of root crops will be procured. (2304 GMT)

1 July

Barley harvesting has begun in the Crimea. (0204 GMT)

Kuban grain harvest under way. (0400 GMT)

Minsk Oblast rayon harvests rye grass. (0400 GMT)

Farmers in North Ossetia have started selective harvesting of barley. (1100 GMT)

Harvesting of grain crops in Armenia have been started by farmers of the Araratkiy Rayon. (1300 GMT)

2 July

Collective and state farms of Uzbekistan have begun the third mowing of alfalfa. Intensive technology has begun to be introduced on many farms in the republic this year for the cultivation of fodder crops. This has allowed specialized fodder-crop harvesting teams to shorten the time sown grasses take to ripen and to improve their quality. However, our correspondent notes, throughout Uzbekistan as a whole there is not enough fodder for the stock of publicly owned cattle at the moment. There is a lag in the carrying out of this important work particularly in Bukhara and Khorezm Oblast, and also in Karakalpak ASSR. The best times for grass-mowing are being missed here. In certain

cases equipment for haylage making and fodder storage is being grossly abused. (0400 GMT)

Mass harvesting of grain is in progress in Chimkent and Dzhambul Oblasts of Kazakhstan. In the south of Kazakhstan, 235,000 hectares have been harvested. In Chimkent Oblast half the grain crop has been threshed. The first grain of the new harvest has reached the elevators in Dzhambul Oblast. (0800 GMT)

Belrussian haymakers are completing cutting of grass for the first time on the second million hectares; the Ministry of Agriculture says hay has been harvested on 75 percent of the area; on an average 20 percent of the annual plan for hay, 62 percent of haylage and 24 percent of grass meal and other dehydrated fodder have been procured. All 117 enterprises in the republic are ready to accept the new harvest, about 100,000 tonnes of grain can be unloaded daily. (1330 GMT)

In the Don region, grain has been cut on the first 10,000 hectares, despite wet weather. (2300 GMT)

3 July

Moldavia's machine operators have started harvesting cereal crops; machinery is now in the barley fields. (1530 GMT)

Azerbaijan: Farmers in Neftechalinskiy Rayon are first in Azerbaijan to complete harvesting, having harvested bread grains from almost 10,000 hectares, in a short period of time and without losses. Sales of grain to the state have got underway in the rayon: more than 75 percent of wheat handed over consists of strong and hard varieties. (1530 GMT)

Stavropol Kray: A month's campaign of fodder procurement has ended there. Particular attention was paid to setting up hay reserves; about 300,000 tonnes, almost a third of the annual need, has been put into storage for the coming winter. Kirovskiy Rayon farms have procured twice as much has as was planned. (1530 GMT)

Daghestan: Farms have already procured 500,000 tonnes of fodder. (1530 GMT)

4-6 July

LD070043 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 4-6 July 1985. Times of broadcasts are given in parentheses at the end of each item.

4 July

No fileworthy reports.

5 July

Altay farmers have received 6,000 ha of new irrigated land this year. By 1990, Altay will have 300,000 ha of irrigated land--two and a half times the present area. (0204 GMT)

Harvest of winter grain crops has started in Stavropol Kray. Farmers plan to deliver 2,020,000 t of grain to the state. (0800 GMT)

Continuous rain has been hampering haymaking operations in Archangel Oblast in recent days. But mushrooms are growing well, even in the center of Archangel. (1300 GMT)

Kazakh scientists have developed a device for drying wheat and barley, capable of processing around 2,500 t daily--3 times more productive than presently existing units. (1530 GMT)

A cascade of pumping stations came into operation today in Kubatinskiy Rayon, Azerbaijan. The cascade feeds the water of two rivers into a reservoir at a height of almost 1 km, which irrigates an area of over 3,000 ha. Whereas previously the area was used only for sheep farming, it can now be used for viniculture, market gardening and feed production. (1530 GMT)

The USSR Ministry of the Fruit and Vegetable Industry has today reported that the half-year plan for early vegetable transportation has been considerably over-fulfilled. However, specialists note that deliveries could be increased if refrigerator trucks were not forced to wait in queues at filling stations. Another problem is caused because many enterprises prefer to use rail transport, which although somewhat cheaper than road haulage, is slower. For

these reasons, a large amount of fruit and vegetables rot before they can be dispatched from the farms. (1530 GMT)

Moldavia has begun grain harvesting. (1800 GMT)

Machine operators of the Altay Kray steppes have started harvesting spring grain crops. (2004 GMT)

6 July

Journalist Vladimir Makarov reports from Krasnodar Kray where grain, cereals and pulses are due to be harvested on 2 million ha this year and 4,375,000 tonnes of bread grain is to be brought in. The cereal harvest in the Kuban is quite a good one, although the grain is stunted on many farms due to the dry spring. Compared with last year less straw has been brought in. (0800 GMT)

Hay-making is in progress in the Ukraine: about 40,000,000q have been laid in so far. (1300 GMT)

7-8 July

LD090144 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 7-8 July 1985. Times of broadcast are given in parentheses at the end of each item.

7 July

Haymaking in Ukraine: Accelerated technology of drying the green mass under cover (plenka) by means of ventilators has enabled about 40 million quintals to be laid in for the winter. (0104 GMT)

Despite it being Sunday, feed is being laid in: In Teselinograd Oblast, about 400,000 t to date. (0400 GMT)

Grasses have ripened fast in Kurgan Oblast, thanks to a long spell of warm, dry weather. (0400 GMT)

Altay Kray plans to sell over 1,000,000 t of strong and hard varieties of wheat to the state this year. Valuable wheat has been sown on 1,200,000 ha using intensive technology, involving the application of different types of fertilizer. (1000 GMT)

Feed procurement is in progress throughout the country on the whole, 264 million tonnes of silage has to be laid in. About 16,000,000 t of hay have already been procured. (1100 GMT)

First hay-harvesting in the Kuybyshev Oblast has shown poor results, due to the weather conditions of the previous months. (1100 GMT)

Twenty-five thousand t of grass meal have been laid in to date in Tambov Oblast, this is about one-third of the planned total, in advance of last year. (2304 GMT)

8 July

Haymaking carried out on 1,000,000 ha of Pavlodar Oblast. (0204 GMT)

In the Kazakh virgin lands, over 100 aircrews are working on cropspraying in Tselinograd Oblast. So far almost 2,000,000 ha have been treated with weed-killer there. (0600 GMT)

We received reports today that the arms of north Ossetia have started selling grain of strong and valuable varieties to the state. (1000 GMT)

Grain sales to state begin in Kuban; all elevators have been carefully made ready. (1100 GMT)

Kazakhstan's farmers have harvested grain from 500,000 ha to date. (1300 GMT)

Altay Kray farms have already laid in 300,000 t of hay, haylage and vitaminous grass meal. (1300 GMT)

The agricultural workers of Kazakhstan have harvested grain crops over an area of 500,000 ha. In southern Karzakhstan the weather has been very hot and characterized by drought, and the bread grain crops in many fields have been undersized. In such conditions the main task in the harvest is the struggle to keep losses to a minimum. (1750 GMT)

Kherson Oblast: Harvesting of early cereals has begun. Dry weather in May and heavy rain in June have made for difficulties. Plans are being altered to make up for lost time. (2005 GMT)

CSO: 1824/460

MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

CSA REPORTS KAZAKHSTAN HARVESTING WORK--The harvesting work in Kazakhstan is gaining momentum. As the Central Statistical Administration reported today, grain has been harvested on 235,000 hectares. The additional quantity over the last week amounted to nearly 200,000 hectares. On the farms of Chimkent Oblast, they have already threshed half of the grain; the harvesting of grain has been completed in Keles Valley and the combines are moving from here to the zone adjoining the mountains in Chimkent Oblast, where grain ripens later. [Text] [Moscow Domestic Service in Russian 0600 GMT 2 Jul 85 LD]

CSO: 1824/460

LIVESTOCK FEED PROCUREMENT

UDC 636.085./.087

RSFSR DEPUTY MINISTER DISCUSSES FEED PRODUCTION EFFICIENCY

Krasnodar SEL'SKIYE ZORI in Russian No 6, Jun 85 pp 3-7

Article by N. Pospelov, RSFSR deputy minister of agriculture: "Sufficient Feed For Each Farm"

Text The successful development of the country's economy and steady growth in the well-being of the Soviet people have placed additional emphasis on implementation of the Food Program. In carrying out this program, a great role is being played by the increased production of livestock husbandry products based upon a maximum strengthening of the feed base. The task has been assigned of carrying out the measures required for raising the productivity of all feed lands, such that each farm is fully supported in terms of its livestock husbandry requirements for high quality coarse, succulent and pasture feeds. Considerable material resources are being allocated for the development of feed production, which is assuming a branch character, and for strengthening its logistical base and this is bringing about improvements with regard to ensuring that the farms are supplied with forage.

Over the past 4 years, the average annual procurement volume for coarse and succulent feeds for the north Caucasus and central chernozem regions exceeded the level for the 10th Five-Year Plan by 12-17 percent and in Krasnodar Kray and Belgorod, Lipetsk and Tambov oblasts -- by 17-29 percent.

In addition to increasing the production of feed, importance is also being attached to improving its structure and ensuring efficient use of the forage resources. As a result of measures undertaken by the kolkhozes and sovkhozes, the consumption of concentrated feed has been reduced somewhat. Compared to 1980, the proportion of concentrates in the feed rations for cattle in the central chernozem region has declined by 6.2 percent and in the north Caucasus -- by 4.9 percent. At the same time, the consumption of hay has increased by 2.4-4 percent and silage consumption -- by 2.2-6.6 percent.

Last year, despite the complicated weather conditions, the production plan for coarse and succulent feed for the north Caucasus was fulfilled by 91 percent and that for the central chernozem region -- by 86 percent.

The further intensification of field feed production is unthinkable in the absence of an improvement in the structure of perennial grass sowings or an improvement in the structure of the grain fields through an expansion in the

areas to be used for the more productive forage crops. In increasing the yields of forage grain, a special role must be played by corn, which surpasses many other crops in terms of its productivity and feed qualities.

During 4 years of the five-year plan, kolkhozes and sovkhozes in the central chernozem region produced coarse and succulent feed at the rate of 14.4 quintals of feed units (a maximum of 16 quintals of feed units in 1982) per standard head of cattle and on farms in the north Caucasus -- 15.9 quintals (a maximum of 17.4 quintals of feed units in 1982). This amounted to 55-60 percent of the requirement according to the zootechnical norms.

Livestock productivity is higher in those krays, oblasts and republics where greater quantities of feed are placed in storage. For example, over the past 9 years in the Kuban an average of 17-19 quintals of feed units has been procured per standard head. Here the milk yield per cow has reached 2,650-2,850 kilograms. In those areas where coarse and succulent feed was placed in storage at the rate of 12-15 quintals of feed units, the productivity of the cows did not exceed 2,100-2,300 kilograms of milk, the average daily weight increases in the animals ranged from 280 to 300 grams and the delivery weight for a head of cattle was 250-320 kilograms.

The livestock on many farms are underfed during the stabling period and also during the summer period and this, in addition to other factors, adversely affects their productivity. On the whole it remains low and if it increases at all it does so spasmodically depending upon the annual climatic conditions.

All of this results from the fact that not enough feed is being procured. In addition, the quality of the feed is unsatisfactory. During the current five-year plan and compared to the previous one, the kolkhozes and sovkhozes in the central chernozem zone tolerated a reduction in the productivity of their perennial and annual grasses that amounted to 20.6 and 15.6 quintals respectively.

Corn and perennial grasses make it possible to obtain high feed unit yields per hectare. However, despite this fact, considerable areas have been set aside for the cultivation of low productivity annual grasses. More than one third of the fodder fields (31-37 percent) have been set aside for these grasses in Kursk and Lipetsk oblasts, Stavropol Kray and in the Dagestan, Kabardino-Balkar and Chechen-Ingush ASSR's. When one considers that the farms are sustaining a shortfall of 5-9 feed units from each hectare occupied by annual grasses, then it is easy to imagine the amount of forage that is being lost owing to an incorrect structure for the areas under crops.

In recent years there has been a tendency towards increasing the procurements of hay and this has had a positive effect on the productivity of the cows. However the proportion of hay consumption in 1983 in the central chernozem region amounted to 3.1 percent and in the north Caucasus -- 5.3 percent, instead of 11-13 percent as called for in the zootechnical norms. Root crops constitute only 3.1 and 3.4 percent of the overall consumption of feed, instead of 8-9 percent as called for in the norm. The areas allocated for these crops are larger and yet the yields for both zones have not exceeded 220 quintals per hectare over a period of many years.

Serious improvements are required in the work concerned with increasing the production of feed protein through an expansion in the sowings of alfalfa, clover, sainfoin and other protein-rich perennial grasses.

Further growth in the procurements of high protein feed is impossible unless timely improvements are carried out in the perennial grass sowings. However, this is not being done. The proportion of old alfalfa sowings on farms in the north Caucasus is 40 percent and in the central chernozem zone -- 27 percent. And indeed everyone is aware that it is impossible to obtain high yields of hay or green feed from old thinned out areas. The farms in Kursk and Lipetsk oblasts carried out a great amount of work in this regard. Here the cutting areas for perennial grasses have for the most part been restored and old sowings of alfalfa and clover do not exceed 5-7 percent.

The harvesting schedules are being dragged out in an intolerable manner at many kolkhozes and sovkhozes and the technologies for laying in haylage and silage and for preparing grass meal and granules are being violated. Beyond any doubt, this is adversely affecting the quality of these materials. Last year, in Severo-Kavkazskiy Rayon, 3 percent of the haylage, 5 percent of the hay, 2 percent of the silage and 6 percent of the grass meal were classified as being of sub-standard quality and in the central chernozem region -- 3 percent of the hay and 7 percent of the remaining feeds. As a result of a violation of the feed procurement technology, the nutritional value of a kilogram of such feed is not very high: haylage -- 0.23-0.26 feed units and silage -- 0.18-0.20 feed units.

A direct relationship exists between the quality and nutritional value of the feed. In those areas where the quality of the forage is low, its nutritional value will also be low. During the past year, on farms in Voronezh Oblast, 46 percent of the haylage was classified as being of 3d grade or sub-standard quality and its nutritional value was 0.22 feed units, Lipetsk Oblast -- 67 and 0.23 and in the Kabardino-Balkar ASSR -- 100 percent and 0.17 feed units. A similar situation prevails in the case of silage procurements in Kursk Oblast, with the nutritional value of the silage being 0.15 feed units. The shortfall in nutrients on Lipetsk farms amounts to 35,000 tons of feed units.

Further improvements in the quality of the forage will make it possible to increase the yield of nutrients. If the technology for procuring haylage and silage is observed and if their nutritional value is raised respectively to 0.32 and 0.20 feed units, then it will be possible to obtain 430,000 additional feed units in the central chernozem zone and approximately 300,000 additional tons of feed units in the north Caucasus region.

The time is at hand for examining the technology for cultivating corn for silage and for growing it ideally in accordance with the grain technology, without crowding the plantings. This is particularly valid in view of the fact that the production and deliveries of hybrids for early and mid-season maturing varieties of corn are increasing with each passing year. The availability of this seed made it possible last year to plant up to 4 million hectares using the grain technology and yet only 2 million hectares were sown. The kolkhozes and sovkhozes in the central chernozem zone used the grain technology on only 9 percent of the corn area intended for forage purposes. Practically speaking,

one half of the hybrid corn seed is sown in a crowded manner, with a norm of 60-80 kilograms per hectare, and this precludes the possibility of obtaining ears or a maximum yield of dry substance.

Much is being done to improve the quality of corn silage at kolkhozes and sovkhozes in Krasnodar Kray and Belgorod, Lipetsk and Rostov oblasts, where the corn is sown using mainly the grain technology. Corn can and must be grown using this technology on practically all farms in the north Caucasus and the central chernozem region. This will make it possible to obtain ears not only of milky-waxy but also waxy ripeness, it will increase the yield of dry substance and it will raise the quality and nutritional value of the feed.

Unfortunately, many agricultural organs, particularly in Voronezh, Tambov and Kursk oblasts, are not attaching proper value to cultivating corn using the grain technology and, as a result, the crowded plantings produce silage bulk containing 10-16 percent dry substance instead of the 30-33 percent obtained with the grain technology.

Special attention must be given to the development and mastering of new technologies for the laying in of mixed silage. The experience of many farms confirms the fact that this method can be employed successfully for feeding not only cattle but also hogs.

The agricultural organs and kolkhozes and sovkhozes in the central chernozem region are carrying out purposeful work in connection with reducing the consumption of concentrated feed based upon an increase in the procurements of mixed silage and other bulky feeds. In 1984, the farms in this zone laid away 5.3 tons of mixed silage for each principal sow and in Lipetsk and Tambov oblasts -- 6.7 and 8.6 tons respectively. At the same time, only 2.8 tons of this feed were laid away per sow in the north Caucasus region.

Mixed silage that is prepared in a high quality manner is in like manner consumed well by all types of animals and poultry and can replace successfully up to 15-20 percent or more of the concentrated feed contained in rations. The use of mixed silage in swine husbandry promotes year-round support for the animals in the form of succulent feed, in which 80-90 percent of the protein and carotene are retained while the nutrient losses in unpreserved feed reach 30 percent.

An increase in mixed silage procurements together with growth in the production of coarse and succulent enabled the kolkhozes and sovkhozes in the central chernozem zone, commencing in 1980, to reduce the proportion of grain forage in overall feed consumption from 43.3 to 36.2 percent. Here the consumption of concentrates during this period, per quintal of weight increase in the hogs, decreased by 0.74 quintals of feed units.

At kolkhozes and sovkhozes in Voronezh Oblast, the overall consumption of concentrates decreased by 120,000 tons compared to the 10th Five-Year Plan owing to the use of mixed silage in the ration for hogs. At the Nachalo Sovkhoz in this same oblast, which annually produces 2,300-2,400 tons of pork, mixed silage constitutes on the average 23-25 percent of the animal rations. In 1983 the sovkhoz procured and used 6,000 tons of mixed silage, thus realizing

a savings of approximately 1,500 tons in the use of mixed feed. Moreover, the preservation rate for the young pigs was 97 percent and the production cost per quintal of weight increase -- 134.6 rubles.

A steady expansion must be achieved in the procurements of high-energy feed from corn of milky-waxy and waxy ripeness, with thorough milling of the grain with cobs or in pure form. This type of feed must be disseminated on an extensive scale.

Improvements in the effectiveness of use of feed is considered to be a matter of priority importance.

Large quantities of straw are being procured in both zones. It still serves as a principal feed reserve and one which by no means is being utilized either completely or effectively. Treatment with liquid ammonia makes it possible to improve its edibility and at the same time it increases its nutritional value by twofold. Last year the farms in the central chernozem and north Caucasus regions treated more than 2 million tons of straw with anhydrous ammonia. In Kursk Oblast, 245,000 tons of straw were treated in this manner and in Dagestan and Checheno-Ingush ASSR's -- not one ton.

A very important problem -- growth in the productivity of natural feed lands, which occupy 1,520,000 hectares in the north Caucasus and central chernozem regions.

However, the natural feed lands in many regions are not being utilized in an efficient manner and the annual plans for radically improving them are not being carried out. As a result, the productivity of these lands in the central chernozem region is 15.6 quintals of hay per hectare and in the north Caucasus -- 12.4 quintals. Nor is this an accident. The improved haying lands here occupy from 1 to 12 percent of the overall area of natural haying lands. Fertilizer is being applied to the meadows over negligible areas. Only approximately 1 percent of the meadows is being fertilized on farms in both zones. And indeed the process of degeneration of a stand of grass takes place when fertilizer is not applied. The application of a quintal of mineral fertilizer per hectare would furnish both zones with more than 200,000 additional tons of hay.

Several million tons of grain forage are being allocated annually for feeding to livestock and yet only one half of it is being processed into mixed feed.

By attaching special importance to processing their own grain forage into mixed feed and balanced feed mixtures, the farms in Krasnodar and Stavropol krays have created a base for the production of feed additives from local raw material resources. Thus nutrient yeasts, mineral briquettes, meat-and-bone meal, chlorella and other components are being produced in Stavropol Kray. A diverse assortment of feed additives for adding to mixed feeds and feed mixtures is being produced in the Kuban region: nutrient yeasts, grass meal, dry pulp residue, oilcake, ZTsM /whole milk substitute/ and carbamide concentrate. All inter-farm plants have lines for adding molasses, fodder fat and waste products from the canning industry. All of this made it possible to lower the grain content in mixed feed to 70 percent and to produce such feed for all types of animals and poultry.

However, the positive experience accumulated in both zones with regard to organizing the production of mixed feed has still not been made available to a majority of the kolkhozes and sovkhozes.

In addition to those measures for improving feed production which are being carried out under non-irrigation farming conditions, exceptional importance is being attached to the highly effective use of irrigated and drained lands for augmenting the feed resources. The October (1984) Plenum of the CPSU Central Committee, which approved a long-term program for land reclamation, defined the development of feed production as a leading trend in the use of renovated lands.

The republic's largest irrigated field, which occupies approximately 2 million hectares, is located in the north Caucasus. More than 360,000 hectares are under irrigation in the central chernozem zone. In both economic regions, forage crops are being grown on more than 1 million hectares of irrigated land. In addition, there are approximately 130,000 hectares of irrigated haying and pasture land. Thus, 47 percent of the irrigated areas are occupied by forage crops and natural lands. It is therefore easy to understand the great importance which is being attached to raising the effectiveness of use of reclaimed lands in this region, especially irrigated land for the purpose of increasing the production of feed. At the present time, 15 percent of the overall procurements of coarse and succulent feed is being produced under irrigation conditions in the central chernozem zone and in the north Caucasus -- 43.5 percent.

The sowings of perennial grasses have been expanded considerably. Since 1980, their area has been increased by 153,000 hectares, with the overall area now being 1,166,000 hectares.

High and stable forage crop yields are being obtained by those farms which organized the highly efficient use of irrigated lands, which are introducing into operations leading developments as recommended by science and practical experience and which are employing a creative approach in their utilization of these valuable lands.

The experience accumulated not only by individual kolkhozes and sovkhozes but also by entire rayons is rather instructive in this regard. During the years of the 11th Five-Year Plan, the productivity of an irrigated hectare in Stavropol Kray reached 61 quintals of feed units compared to an average of 52 during the preceding five-year period. The farms in this kray were able to achieve such indicators as a result of a high culture of farming, observance of the optimum irrigation regime and the carrying out of 5-6 waterings. Considerable experience has been accumulated here in obtaining two forage crop yields annually from the same area. The kolkhozes and sovkhozes are obtaining more than 100 quintals of feed units per hectare from such fields. Practically all of the irrigated lands in the kray have been assigned to subunits which operate on the basis of collective contracts. In 1984, the Stavropol workers obtained 340 quintals from a hectare of corn for silage (in 1983 -- 332), perennial grasses for hay -- 76 quintals (in 1983 -- 73.2) and for green feed -- 410 quintals (in 1983 -- 449 quintals per hectare).

Of 6,000 hectares of irrigated land at the rice growing Severnyy Sovkhoz in Rostov Oblast, 2,100 hectares (35 percent) are used for the production of feed

and corn for grain. In recent years, all sowings of this crop were cultivated using the grain technology. It was harvested strictly during the milky-waxy ripeness phase. The nutritional value of a kilogram of such silage, based upon ripe ears, increases from 0.2 to 0.35 feed units. In 1984, corn for silage that was cultivated using the grain technology furnished an average of 550 quintals. This year the farmers of the Severnyy Sovkhoz hope to obtain 560 quintals of corn for green feed, 110 quintals of alfalfa hay and 600 quintals of perennial grass fodder from an irrigated hectare and to raise the average productivity to 110 feed units.

However, it must be confessed that the productivity level achieved in the region for forage crops and the productivity of the irrigated lands on the whole are not in keeping with the modern requirements. Moreover, by no means is full use being made of the potential of irrigated farming.

The long-term program for land reclamation has raised the task of increasing the production of feed in the Russian Federation by 1990 and on irrigated and drained lands by a factor of 1.7 compared to last year and of achieving complete satisfaction of the livestock husbandry requirements for coarse and succulent feed through an expansion of the sowings of high-protein perennial grasses and soybeans on irrigated lands and by improving the structure of the areas under crops. A preference must be shown on these lands for the more productive crops.

According to scientific and production data, perennial grasses, especially alfalfa, capable of furnishing fodder yields in excess of 500 quintals must be considered as a mandatory and principal component of specialized crop rotation plans under irrigation conditions. Alfalfa is indispensable as a predecessor crop arrangement. In those areas where it has been sown and properly tended over a period of 3 years, a hectare will furnish 20-25 tons of root and crop residues, as a result of which the humus content is raised by 0.3-0.4 percent and the physical properties of the soil are improved. Perennial grasses are presently occupying one half of the forage crop areas under irrigation. Opportunities for raising their productivity sharply are to be found in all regions and this is borne out by the experience of leading farms, brigades and teams.

In 1983, in Stavropol Kray, the Put' K Kommunizmu Kolkhoz in Stepnovskiy Rayon obtained 133 quintals of hay per hectare (the average rayon figure -- 59.4 quintals per hectare) and in 1984 -- 135, the Kolkhoz imeni Lenin in Sovetskiy Rayon -- 123 and the Kolkhoz imeni Frunze in Belgorod Oblast -- 71 quintals. At the same time, 59.4 quintals per hectare were obtained in the north Caucasus and in the central chernozem region -- 36.7 quintals per hectare. Thus the yields obtained from leading farms surpass the average oblast indicators by a factor of 2-3. The productivity of perennial grasses is extremely low at many kolkhozes and sovkhozes. For both zones on the whole during 1983 and of 4,023 farms which cultivated perennial grasses for hay on irrigated land and compared to an average per hectare yield of 56 quintals, 1,168 farms (29 percent) obtained more than 60 quintals and 673 farms (16 percent) -- less than 30 quintals.

One of the chief reasons for this situation: severely thinned out plantings over considerable areas; excessive dragging out of the schedules for the use of perennial grasses (5-6 or more years) and an insufficient number of cuttings.

In 1982, an inspection was carried out on the perennial grass plantings on irrigated land, plantings characterized by medium or severely thinned out sowings were singled out and measures were defined for improving them. An analysis of the work carried out during 1983 and 1984 reveals that in a number of areas the measures developed are being carried out in an unsatisfactory manner and that large areas of perennial grasses continue to remain sparse just as in the past. A check must be carried out once again on the density of the plant stands on reclaimed lands, a determination must be made as to those areas requiring improvements in the grass stands and measures must be carried out directed towards improving them. One factor should be treated as law -- the number of plants on an irrigated hectare should be optimum and proven by science and practical experience.

The productivity of an irrigated feed field is influenced to a considerable degree by the manner in which the harvest work is organized. Let us take alfalfa as an example. This highly productive crop is capable of providing 4-6 cuttings under irrigation. An average of 2.4 cuttings was carried out last year in the north Caucasus, a third cutting was obtained on only 44 percent of the areas and a fourth one -- on only 13 percent. The average number of cuttings in the central chernozem zone was 2.1 and a third cutting was carried out here on only 19 percent of the plantings.

And indeed not every farm is capable of employing the fine experience accumulated in Kirovskiy Rayon in Stavropol Kray with regard to organizing the harvesting of perennial grasses. The kolkhozes and sovkhozes in this rayon have developed and checked out in actual practice a technology for harvesting alfalfa that makes it possible to obtain five cuttings. The essence of this technology is as follows. The entire alfalfa sowing area in a brigade is divided into 20 equal sectors, each of which is harvested over a period of 1-2 days. When the last sector has been harvested, it is then time to commence the next cutting: it forms over the course of two ten-day periods. The rapid completion of an area makes it possible to apply a top dressing and commence watering and in addition it prevents a delay in the aftergrowth of the grasses. Nor does the entire cycle require 22-23 days. Extensive use is made of forced ventilation in connection with the procurement of hay.

Unfortunately, the technology being employed in Kirovskiy Rayon is still not being used extensively in Kirovskiy Rayon, even though it makes it possible to obtain a considerably greater number of cuttings of perennial grasses, while raising the productivity of a fodder hectare.

The second forage crop in terms of importance to be obtained under irrigation conditions is that of corn. Many collectives are obtaining fine corn yields through use of the advanced technology for cultivating it for grain and silage. In 1983, they obtained 300 or more quintals of fodder -- 67-70 quintals of feed units -- per hectare from one third of the areas. There are many kolkhozes and sovkhozes where a hectare of corn is furnishing a stable yield of from 70 to 110 quintals of feed units from year to year. But it must be confessed that two thirds of the plantings are providing no more than 35-40 quintals of feed units per hectare.

In order to correct the situation and in the interest of making full use of the potential afforded by this crop, all of the corn areas should be converted

over to programmed cultivation and over the next 2 years the Astrakhan technology should be introduced into operations on an extensive scale for the cultivation of this crop.

Extensive production tests carried out in 1984 on the use of this technology at scientific institutes and base farms served to underscore its high effectiveness. For example, the Kolkhoz 40 Let Oktyabrya in Kashirskiy Rayon of Voronezh Oblast obtained 480 quintals of fodder as a result of employing this method for cultivating corn for silage.

The experience of leading farms and scientific institutes reveals that the introduction of the Astrakhan technology for cultivating corn and other forage crops makes it possible to obtain high yields while reducing the consumption of costly herbicides from one-fifth to one-third and lowering production costs by 30-40 percent.

When the conventional technology is employed, up to 30 percent of the plants are cut down during cultivation on 80-85 percent of the corn sowings and thereafter weeds grow on these tracts. The Astrakhan technology makes it possible to reduce considerably the number of plants knocked down during cultivation.

Soybeans, rape and secondary and post-harvest sowings are deserving of a great amount of attention. Sorghum and Sudan grass serve as fine supplements for alfalfa and corn. But high yields can be obtained for these crops only if the crop rotation plans are mastered and they are grown following good predecessor crop arrangements.

Again it would be wrong to cite the operational experience of farms in Kirovskiy Rayon in Stavropol Kray in intensifying the use of irrigated land for the purpose of increasing feed production. There are 14,500 hectares of irrigated land in the rayon and they occupy 13 percent of the arable land. In 1984, 60 percent of the overall production of coarse and succulent feed was obtained from this land. The productivity of an irrigated hectare is almost 100 quintals of feed units.

Unfortunately, the creation of an optimum structure for the areas under crops is not being carried out in as thoughtful a manner in all areas. Large areas of irrigated land are occupied by annual grasses for hay, the productivity of which in a number of oblasts does not exceed 20 quintals and companion sowings using other crops for the purpose of obtaining 2-3 yields from these areas are not being employed. The percentage of such areas in the central chernozem zone is 12.3 and in the north Caucasus the figure is even less -- 7.6 percent. An expansion in these areas constitutes a large reserve for augmenting the feed resources and achieving improved use of an irrigated hectare.

Growth in the production of feed on irrigated lands is associated to a large degree with the introduction of a scientifically sound farming system, with progressive forms for labor organization and wages and with an increase in the personal and collective interest of workers engaged out on the forage crop fields.

Increasingly greater use is being made of the programmed method for obtaining high forage crop yields from irrigated lands. During 1984, this method was employed on many farms in both zones. Notwithstanding complicated weather conditions, sectors for the programming of corn for silage furnished an increase of 13 percent, perennial grasses for hay -- 14-16 and for green feed -- 24-26 percent.

Deserving of attention is the operational experience of teams which are obtaining feed from irrigated lands and simultaneously using this feed for the fattening of cattle.

In conformity with decisions handed down during the October (1984) Plenum of the CPSU Central Committee, the use of reclaimed lands, commencing with this year, will be carried out based upon contracts concluded by kolkhozes and sovkhozes with aquicultural repair-construction and operational organizations and associations of Sel'khozkhimiya and Sel'khoztekhnika. The experience accumulated this year is of considerable importance in connection with the development of proper relationships between the kolkhozes and sovkhozes on the one hand and service enterprises and organizations on the other and also for raising the responsibility of partners for the effective utilization of reclaimed lands.

At this time, with an attempt being made on each farm to create a reliable supply of coarse and succulent feed, the farmers are proceeding to carry out their green harvest work in an efficient manner. All possible materials are being taken from the fields, meadows and unsuitable lands in the interest of enriching the rations, ensuring the full-value feeding of the livestock and replacing a considerable portion of the grain forage. The experience of Belgorod workers in raising the effectiveness of use of feed resources for livestock husbandry and reducing grain consumption for forage purposes, approved by the Politburo of the CPSU Central Committee, has been disseminated on an extensive scale.

Relying upon the intensive development of feed production operations, the livestock breeders in the north Caucasus and the central chernozem zone are persistently striving to carry out in an honorable manner the obligations undertaken for the final year of the five-year plan, to make a worthy contribution towards implementing the Food Program and to prepare properly for the 27th CPSU Congress.

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CSO: 1824/428

LIVESTOCK FEED PROCUREMENT

CSA REPORTS FEED PROCUREMENT PROGRESS, PROBLEMS

PM041828 Moscow SELSKAYA ZHIZN in Russian 28 Jun 85 p 1

[Livestock expert M. Glinka "Agricultural Review": "Both Hay and Haylage"]

[Excerpts] The USSR Central Statistical Administration has produced figures for the latest phase of feed procurement. Almost 15 million hectares of annual grasses have been cut for hay and haylage in the country. Haymaking is being carried out much more rapidly than last year in all union republics except the RSFSR, Belorussia, Lithuania, Latvia, and Estonia. The leaders in fulfillment of the hay procurement plan are the Ukraine (41 percent) and Lithuania (47 percent); Azerbaijan (94 percent) and Lithuania and Tajikistan (86 percent) lead the way in haylage.

Farms in 63 of the RSFSR's oblasts, krays, and autonomous republics are haymaking. Kolkhozes and sovkhozes in virtually all Central Region oblasts have begun cutting grasses. Hay and haylage procurement there (as a percentage of the plan) stands as follows:

<u>Oblast</u>	<u>First Crop</u>		<u>Procured</u>	<u>Haylage</u>
	<u>Cut</u>	<u>Hay</u>		
Bryansk	36	13		41
Vladimir	11	--		11
Ivanovo	2	--		0.9
Kalinin	5	0.1		0.7
Kaluga	26	5		38
Kostroma	0.8	--		--
Moscow	31	11		20
Orel	28	5		6
Ryazan	17	2		7
Smolensk	10	0.8		8
Tula	25	4		12
Yaroslavl	1	--		--

The weather made feed procurement in the Non-Chernozem Zone difficult virtually throughout June. But good organization of all work, flexible use of equipment, and shock labor made it possible even in these conditions for many farms to obtain good results.

Unfortunately, pacesetters' experience is far from being common property everywhere. During last summer, which produced abundant grasses, farms in Ivanovo Oblast (where the chairman of the oblast agroindustrial association is V.I. Volkov) laid in 12.2 quintals of feed units of coarse and succulent feed per standard head of livestock, as against almost 15 quintals the previous year. More than half of the hay and more than one-third of silage proved to be third-class or ungraded. Delay in beginning haymaking and its slow development were among the main reasons for the shortfall in feed and its poor quality. The lesson was, by all accounts, a stern one, and conclusions had to be drawn. And yet this year too the error is being repeated there: everywhere the beginning of grass cutting is delayed. The task set at a recent oblast soviet session was to finish the first cutting of perennial grasses by 10 July at the latest--that is, a week later than the optimal time. Doubts are raised by the oblast's adopted course of preferential procurement of hay, even if the weather means that depots have to lay in a quantity of hay with a significantly increased moisture content, whereas storage of haylage has been falling annually.

A similar situation exists in Kalinin oblast (oblast agroindustrial association chairman V.A. Borisov), where in the second 10-day period of June many rayons had hardly begun grass cutting. The oblast was poorly prepared for this crucial work. Around 1,500 tractorized mowers and mower-grinders, hundreds of tractorized rakes and pick-up balers, and dozens of power-driven combines and units for preparing grass meal were out of order there. Having failed to ensure that equipment was working, the oblast had to hastily call thousands of plant workers and personnel in various establishments away from their main jobs.

CSO: 1824/463

LIVESTOCK FEED PROCUREMENT

BRIEFS

VREMENYA NEWSCAST ON FEED PROCUREMENT--According to data of the USSR Central Statistical Administration, by the beginning of July 15.7 million tons of hay had been procured. Procurement of hay is proceeding in advance of last year's rate at farms in the Ukraine, Belorussia, Lithuania, Kirghizia, Tajikistan, Armenia and Turkmenistan. [Text] [Moscow Television Service in Russian 1700 GMT 4 Jul 85]

CSO: 1824/464

AGRO-ECONOMICS AND ORGANIZATION

USSR DEPUTY AGRICULTURE MINISTER ON ESTONIAN, NATIONAL FARMING

LD301112 Moscow Domestic Service in Russian 2330 GMT 29 Jun 85

[Text] The problems of accelerating scientific and technical progress in Estonia's agroindustrial complex in light of the requirements of the April Plenum of the Central Committee of the CPSU have been examined at a joint meeting of the Commissions for Science and Technology for the Agroindustrial Complex of the Soviet of the Union and the Soviet of Nationalities of the USSR Supreme Soviet. Our correspondent Olga Vasilenko reports:

[begin recording] [Vasilenko] Before the meeting started all deputies were issued colorfully produced books in which photographs, diagrams and comparative data have been collected telling of the use of technology in Estonian agriculture and of the ties of collective and state farms with scientific institutions. A large amount of material for the study and analysis of this problem was also presented to the Council of Ministers of the Estonian SSR and the preparatory deputies' group which visited many farms. This commission was headed by Nikolay Fedorovich Tatarchuk, Supreme Soviet deputy and USSR deputy minister of agriculture. After the meeting I asked him to tell of the positive experience which has been accumulated in Estonia and of what shortcomings still exist in such an important matter as the introduction of the achievements of science and technology in agriculture.

[Tatarchuk] The study of the materials submitted and the meetings locally with agricultural workers have convinced us that an integral system of organization and management of scientific and technical progress has come about in the republic, and that advanced experience is being actively and widely used. During the last 2 years there hasn't been a single unprofitable farm. Special significance is being attached also to organizing the mass introduction of scientific and technical innovations. On the subject of the experiment to perfect management being conducted in the republic--I have in mind the setting up of the republic agricultural industry, which fulfills the function of main organizer of ties between science and practical work--all these questions occupy a central place in its work.

While stressing the republic's achievements we of course cannot say that all factors--speeding up scientific and technical progress as the basis for further increasing output and raising the efficiency of production--have already been activated in its agroindustrial complex. In the current five-year-plan period, unfortunately, a few economic growth indices have decreased. The cost of output has increased. Capital productivity has dropped somewhat.

Of course, the plans for introducing intensive industrial technologies to grow grain crops, potatoes and other agricultural crops, which in the practice of many farms in our country have paid for themselves, are to play an important role in solving all tasks that the agroindustrial complex and the acceleration of scientific and technical progress have been set today.

Meanwhile, as both the analysis and the state of affairs show, intensive technologies in cultivating grain crops are being applied on small areas.

[Vasilenko] What about equipment? Let us assume that some collective or state farm is receiving new equipment. Does the equipment meet today's requirements?

[Tatarchuk] Well, what needs to be said about this? The equipment now being supplied for the needs of agriculture--tractors, trailers and mounting equipment--as to its technical reliability and quality of manufacture needs to be far better. For this reason, these shortcomings--in design, in quality and in technical reliability--are undoubtedly hampering the work of mechanizers and collective and state farms, which results in unplanned idling of equipment. I would say that more time has to be spent repairing this equipment and I think that our machinebuilding ministries should take into account the serious reprimands aimed at the production of machines with good technical reliability and good quality. And in turn, newer generation machines should be produced more quickly.

[Vasilenko] Such a recommendation was also recorded in the deputies' decision. It was addressed to ministries of agriculture, tractor machinebuilding, Goskom-selkhoztekhnika and other ministries and departments on which solving this question depends to a great extent. The deputies also made recommendations to the State Committee for Science and Technology, the Academy of Sciences and the All-Union Agricultural Academy. For it is precisely these scientific institutions which are to perfect the system of planning in agriculture and step up monitoring the fulfillment of integrated programs to solve major scientific and technical problems. [end recording]

CSO: 1824/458

AGRO-ECONOMICS AND ORGANIZATION

KIEV DAILY ENCOURAGES PRIVATE FARMING

AU030730 Kiev RADYANSKA UKRAYINA in Ukrainian 28 Jun 85 p 1

[Editorial: "From the Farmstead"--passages between slantlines published in boldface]

[Text] More than 131 tons of potatoes, compared with the planned 45 tons were purchased last year from the population living on the territory of Luchin village Soviet in Popelnyanskiy Rayon, Zhitomir Oblast, with I.M. Yatsenko as village executive committee chairman. And F.O. Vyshnevskiy and O.V. Starunskiy, toilers at the local kolkhoz, and P.K. Vorokhob, war and labor veteran, sold the state from 3.8 to 4.1 tons of potatoes each....

Similar examples of the increased output and purchases of agricultural produce at private subsidiary farms may also be quoted for many other rayos and oblasts. Since the beginning of the 11th 5-year period, the number of cattle and pigs in this sector has increased, the volumes of meat procurements, compared with 1981, have risen 76.5 percent, and of milk procurements 116.1 percent. The villagers are now selling more potatoes, vegetables, fruit, and other produce.

/All this is a result of the fact that, guided by the CPSU Central Committee and USSR Council of Ministers decision on additional measures to increase the output of agricultural produce at private subsidiary farms of citizens, and by other party and government documents, the republic's administrative and economic agencies have significantly stepped up organizational work to raise by all means the effectiveness of running subsidiary farms of the citizens./ While looking forward to the 27th CPSU Congress, the soviets of people's deputies in Popelnyanskiy Rayon, Zhitomir Oblast; in Nesterovskiy Rayon, Lvov Oblast; Pogrebov village soviet in Brovarskiy Rayon, Kiev Oblast; and Tomashev village soviet in Nedrigaylovskiy Rayon, Sumy Oblast have assumed and are successfully fulfilling the pledges to significantly increase the output and sales to the state of meat, milk, eggs, and other agricultural produce by every farmstead. The Ukrainian Supreme Soviet Presidium has approved their work experience.

At the same time it is to be noted that the reserves and possibilities of private subsidiary farms have not been fully utilized everywhere. In a number of oblasts, administrative and economic bodies have not seen to it that cattle and poultry are bred at every farmstead, and that private plots are used effectively. Thus, the overwhelming majority of the rural population in Donetsk, the Crimean, and Odessa Oblasts do not keep cows. In the Crimean Oblast, in particular, the ratio of cows is 1 per 10 farmsteads. Even in an oblast as developed in an agrarian respect as Cherkassy Oblast this index is 50 percent lower than the republic's average. In the 11th 5-year period, the number of privately kept cattle has even dropped. Requirements with regard to the allotment of meadows and pastures to private subsidiary farms have not been met everywhere. This applies in particular to Ivano-Frankovsk, Khmelnitskiy, and Ternopol oblasts.

All these and other facts adversely affect the purchases of agricultural produce at private farms. So, in the first quarter of the current year, the purchases of meat among the population dropped in the Crimean, Odessa, and Donetsk Oblasts, while Zaporozhye, Nikolayev, Kharkov, Kherson and other oblasts fell significantly short of the targets for milk sales. The sales of eggs shrank in many oblasts. And although in the second quarter things have improved somewhat, administrative and economic bodies must significantly invigorate their activity to remedy the situation and to absolutely fulfill the pledges.

The task confronting the local soviets of people's deputies is to take additional steps in order to increase the output and purchases of plant growing and stockbreeding produce among the population; this means to take pains that kolkhozes and sovkhozes everywhere help citizens purchase young animals and fowl, and allot for their upkeep fodder and additional areas for grazing and hay making. Precisely the soviets are expected to further promote the fruitful practice of concluding kolkhoz or sovkhoz agreements with kolkhoz peasants, workers, and employees on cattle and poultry breeding.

Topical is the need to streamline the operations of reception centers, and to organize in all villages and settlements farmstead and circular tours to collect produce among the population. In this respect, the organizations of the Ukrainian Ministry of the Meat and Dairy Industry and Consumers Cooperative Union still have not displayed due efficiency and accuracy. And also in this field the soviets are expected to be more exigent and to vigorously engage in this matter appropriate permanent commissions, deputies, and public organizations. The point is to make wider use of various moral and material incentives for citizens efficiently running subsidiary farms.

/The 11th 5-year period is nearing its completion, and the great outlines of a new, the 12th 5-year period, whose program will be drawn up by our party's 27th congress, are becoming ever more visible. The soviets of

people's deputies have proved to be able, under the guidance of party organizations, to accomplish even the most complex tasks./ Precisely they strive to streamline by all means the running of agricultural production and see to social reforms in the countryside. The Soviets have also acquired significant experience in increasing the output of agricultural produce at private subsidiary farms of the citizens. An important and pressing duty confronting administrative bodies is to put this experience in the service of the cause and to redouble it.

CSO: 1811/48

AGRICULTURAL MACHINERY AND EQUIPMENT

'STAFF' HITS SHORTFALLS IN FARM MACHINE SPARES

PM251327 Moscow SELSKAYA ZHIZN in Russian 23 Jun 85 p 1

[Yu. Grachev report: "Attention to Orders for the Countryside; From an All-Union Operations Staff Session"]

[Text] A routine session of the all-union operations staff for material and technical supply for agriculture has opened. It was opened by L. I. Khitrun, chairman of the USSR State Committee for the supply of Production Equipment to agriculture. He stressed in his speech that the successful gathering of the harvest in the fields depends largely on the precise and prompt provision of farms with the necessary machines and spare parts. Many industrial enterprises are coping successfully with orders for the countryside.

At the same time there are still several shortcomings in supplying the countryside with the necessary resources. Kolkhozes and sovkhozes are short of stock-raising and feed-procurement equipment, high-powered tractors, combines, and reliable soil cultivation equipment. There is a major shortage of spare parts, particularly spare parts for harvesters--which is causing delays in making them completely ready for the field work.

Thus, the Krasnoyarsk Production Association for Grain-harvesting Combines is chronically in arrears with deliveries to the countryside of cutter drives and other components. They altay tractor plan [as written] is failing to copy with deliveries of driveshafts and the Moscow and melitopol tractor hydraulic unit plants are in arrears as regards distributors, pumps, and hydraulic cylinders.

Matters are not entirely well as regards the provision of agriculture with motor vehicle spares. The session again leveled reproaches at the Michurinsk Motor Vehicle Component plant, which in the first 5 months of the year failed to supply farms with more than 235,000 sets of piston rings. The list of laggard enterprises again includes the Sinelnikov spring plant, the Kostroma "Motordetal" plant, and the Yaroslavl "avtodizel" production association. As can be seen, the Ministry of the Automotive Industry which has jurisdiction over these enterprises is still unable to elaborate decisive measures to introduce proper order.

The session noted that the "Gomselmash" and "zavod imeni Ykhtomskogo" production associations have improved their deliveries to the countryside of food-harvesting equipment. However, substantial arrears to agriculture as regards a whole range of items is still attributable to them.

At the moment kolkhozes and sovkhozes are experiencing great difficulties with feed procurement. One of the reasons is a shortage of spare parts for feed-harvesting equipment, the supply of which is the responsibility of the Ministry of Machine Building for Animal Husbandry and Fodder Procurement.

There is no improvement in the situation regarding the provision of agriculture with industrial rubber goods, despite the fact that this is discussed at almost every session of the All-Union Staff. Farms are still experiencing shortages of v-belts and fanbelts, gaskets, bearings, linings, and other components, which are supplied by the Karaganda, Volga, Leningrad, and Belya Tserkov industrial rubber goods plants.

The session examined other questions of material and technical supply for agriculture.

Taking part in the staff's work were senior workers of the CPSU Central Committee, the USSR Council of Ministers, the USSR People's Control Committee, and the USSR Gosnab, and representatives of ministries and departments.

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AGRICULTURAL MACHINERY AND EQUIPMENT

SOWING, HARVEST SITUATION NOTED; MACHINE REPAIR LAGS

LD072238 Moscow Domestic Service in Russian 1800 GMT 7 Jun 85

[Commentary by Aleksandr Ruvinskiy]

[Text] The last hectares are being sown with spring crops by many kolhozes and sovkhozes. Already it can be said that in spite of all the complications for agriculture this spring, of which there were quite a number, sowing has been carried out in the optimal and most acceptable period of time.

Now a task of no less importance lies ahead: to cultivate and gather the harvest. However, in the far south the harvest has already begun; reports are coming in from the republics of Central Asia and Transcaucasia about the harvesting of winter barley and, in places, of wheat, too. Everywhere intensive preparation for the harvest, which promises to be complicated, has unfolded.

If the winter crops are now a little ahead of last year's period of development, in many rayons the spring crops, as a result of the late, cold spring, are ripening later than usual. This means that the spring crop harvest could coincide with autumn's bad weather. Only the most careful preparation will enable it to be carried out quickly and without losses.

On the whole, the number of reaping machines, particularly grain combine harvesters, held by our kolkhozes and sovkhozes makes its possible for the main grain crop to be harvested on every farm within 10 days. But in the past years these periods dragged on, causing the loss of crops.

Unfortunately, it has become common practice for many farms to begin harvesting without having finished repairing all the combines. Thus, last year, 5 to 10 percent of the combines had not been prepared before the harvest. This resulted in an increased work-load for the working combines, and in delays. It is a cause for concern that this year, too, there has not yet been a real turning point in the preparation of equipment. Here before me is a statistical report: by the beginning of summer the average amount, for the country, of harvesting equipment which had been repaired was even 1 to 2 percent less than last year.

It is very important, too, that equipment be used as productively as possible. Thus the organization of harvesting detachments, furnished with equipment, is to be completed in the very near future, so that all the work can be carried out simultaneously and on an integral basis.

All these matters have been examined at a regular meeting of the CPSU Central Committee Politburo, which outlined supplementary measures so that harvesting crops and procuring fodder can be carried out successfully.

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AGRICULTURAL MACHINERY AND EQUIPMENT

BRIEFS

HARVEST PROBLEMS, MACHINE PERFORMANCE--Kuban is on the eve of harvesting winter crops. More than 90 percent of the combine pool has been prepared for field-work in sokhozes and kolkhozes. The entire machinery is concentrated in the harvesting and transportation complexes. Preparations for harvesting are underway in other regions as well. Repairs are being completed in the farms of Georgia, Belorussia, Armenia, Stavropol Kray, Orenburg, and Belgorod oblasts. However, there appeared to be considerably less machines in working order in the country as a whole than a year ago. Reporting these facts, the USSR Central Statistical Administration pointed out that good-quality repair of machines and the improvement of their operational life is one of the reserves making it possible to raise labor productivity and to reduce the time needed to bring in the harvest without serious additional costs. [Text] [Moscow Domestic Service in Russian 1400 GMT 13 Jun 85]

FARM MACHINE READINESS STATISTICS--Summer fieldwork is underway in all areas. The results of the campaign depend to a crucial extent, on the condition of agricultural equipment. According to USSR Central Statistical Administration figures, as of 1 June, 91 tractors, 83 grain harvesting combines, and 70 reapers out of every hundred were in a state of readiness. The situation will have to be corrected quickly. Animal-husbandry farms are continuing to step up sales of their produce to the state. In the period from January to May, 5.5 percent more livestock and poultry were dispatched to collection points and meat combines than in the same period last year. [Text] [Moscow Domestic Service in Russian 1800 GMT 13 Jun 85]

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TILLING AND CROPPING TECHNOLOGY

WHEAT CROP DEVELOPMENT IN THE RSFSR

Moscow SELSKAYA ZHIZN in Russian 18 May 85 p 2

[Article by V. Dorofeyev, director of VIR [All-Union Scientific Research Institute of Plant Growing] and academician of VASKhNIL [All-Union Academy of Agricultural Sciences imeni V. I. Lenin], Leningrad, under the rubric "Science to Production": "Steppe Amber"]

[Text] The best varieties of macaroni and vermicelli are always made from durum wheats. This is how durum wheat acquired the name "macaroni", and it is no accident that its grain is referred to as steppe amber--not only does it look like amber, it has very high food qualities. Today a large portion of pressed goods as well as of groats must be made from the grain of soft wheat. This lowers nutritive and taste qualities. During cooking the food articles lose their form and stick together.

What's the answer? Evidently we must first carry out a redistribution of area in the zone where durum wheat is cultivated based on the growing need for the grain of this crop. In order to stimulate its production, in 1978 a 100-percent supplement was established for first-class grain and a 70-percent supplement for second-class grain. However, despite this, sowing area in this crop is decreasing in our country. Whereas in 1966 it occupied about 8 million hectares, in 1983 the figure was slightly over 2 million. What is the problem? What are the reasons for such a sharp drop in crop area?

Alarm about the fate of this crop has been voiced on numerous occasions from various tribunals and in the press, and not only in this country. Mexico, the USA, Canada, Italy and France have developed and have begun carrying out special programs related to the breeding of short-stemmed varieties of durum wheat of the intensive type which would not be inferior to soft wheat in productivity. This provided its own fruits. Developed by crossing short-stemmed varieties of soft wheats, the new forms of durum wheat stopped the decrease in cultivation area of this crop which had begun during the 1960's.

Here in the Transvolga, Kazakhstan and Western Siberia durum wheat surpasses soft wheat in terms of productivity only with very fertile soil and a high level of irrigation. Durum wheat is more responsive to agrotechnical conditions and to the application of elevated doses of fertilizer and increased irrigation.

According to data from the Siberian NII [Scientific Research Institute] of Agriculture, on early fall-plowed fields Khar'kovskaya-46 yielded the following: when sown after perennial grasses--41.3 quintals per hectare, on clean fallow--49.7, on well-fertilizer fallow--52.7 and on fallow and with irrigation--55.7 quintals. This institute's experiments in the southern forest-steppe of Omsk Oblast confirmed that the best predecessor for it is clean fallow--the productivity of Khar'kovskaya-46 was 7.8 quintals higher than when sown in furrows following perennial grasses; the productivity of Almaz was higher by 11.2 quintals. In the Transvolga region and in the Kuybyshev Irrigated State Variety Plot the average yield of Khar'kovskaya-46 over a period of 7 years equalled 34.7 quintals per hectare, and of Kinel'skaya soft wheat--30-33.8.

Highly productive varieties of durum wheat are now available in practically every zone. But its geographic range is still considerably smaller than that of soft wheat. Spring varieties of durum wheat always occupied extensive areas in the southeastern part of the RSFSR and yielded high quality grain here. Thus we can in no way justify the curtailment of durum wheat crops in Saratov, Astrakhan, Volgograd and Kuybyshev oblasts or in the Bashkir ASSR. It is possible to increase their area here to a total of 2 million hectares. A significant expansion can also take place in Kazakhstan, Orenburg and Chelyabinsk oblasts, Western Siberia, the TsChO [Central Chernozem Zone], the Ukraine and the Northern Caucasus.

Not long ago there were relatively few varieties of durum wheat and Khar'kovskaya-46 occupied first place among them. Now the country's breeders have developed new varieties which surpass it in productivity and which are suitable for sowing on both irrigated and dry-farming land.

Today 14 spring and 12 winter varieties of durum wheat are being cultivated. It would seem to be an adequate number. However, the area they occupy is small. The main reason for this is that seed-farming is poorly organized, although it must be said that in 1983 with a decrease in the total sowing area occupied by durum wheat there was a significant growth in the sowing of several new varieties (Almaz, Altayka, Bezenchikskaya-139 and Orenburgskaya-2) as compared to 1982. These varieties are sufficiently resistant against lodging and drought and are large-grained, but they are sensitive to loose and covered smut and to fungal rot and their industrial characteristics also need to be improved.

New intensive varieties of winter durum wheat, Parus and Korall Odesskiy, with a potential productivity equal to that of soft wheat variety Bezostaya-1 have moved into the fields, having been developed in the All-Union Breeding-Genetics Institute by VASKhNIL academician F. G. Kirichenko and his co-workers. These varieties are responsive to improved cultivation and irrigation conditions and are resistant to lodging. The regionalized Kristall-2 of the Krasnodar NII [Scientific Research Institute] of Agriculture is also highly productive and the Zhemchuzhina variety is promising. Enterprises should undoubtedly be paying more attention to turgid varieties of winter wheat--Novinka-2 and Novinka-3--which were developed in the Don Scientific-Research Institute by VASKhNIL academician I. G. Kalinenko.

Today's assortment of durum wheat allows us to increase grain yield rapidly and considerably, especially in Siberia. New and highly productive varieties have also appeared here. For example, the Siberian Scientific Research Institute of Agriculture has developed Antey, which yields 41 quintals of grain per hectare when sown on fallow.

While noting the changes for the better in the selection of durum wheat we must also mention that this work must be strengthened and made more purposeful. The assignments of scientific research institutions involved in this work are still giving this area of research insufficient attention. Some large breeding centers do not even have independent laboratories for the selection of durum wheats; this includes the Volga, Altay and Kuybyshev NII's of Agriculture.

Experience has shown that a common problem to all regions that cultivate durum wheat is that of increasing its productivity to the level of soft wheat and of improving grain quality. In the Volga and Ural areas we must develop average-maturation varieties that are resistant to drought, loose smut and fungal rust. In dry steppe regions we need semi-intensive types of varieties, and in steppe and forest-steppe rayons, characterized by satisfactory moisture supplies--varieties that are more resistant to lodging. In the Northern Caucasus varieties are needed that are equivalent in ecological plasticity to the best breeding forms of soft wheat.

In Siberia it is more difficult to carry out the breeding of durum wheat than of soft wheat; here every zone needs its own varieties, well-suited to local soil-climatic conditions. In the Central Chernozem oblasts as well as in Poles'ye and the Ukrainian forest-steppe there must be a significant increase in the resistance of durum wheat against loose and covered smut and brown rust. The southern Ukraine and Moldavia need highly productive winter varieties with elevated heat-resistance during the formation and maturation of grain.

The All-Union Institute of Plant Growing is building its work in accordance with these goals that stand before breeders. On the basis of a comprehensive study of wheat, the institute's workers select maternal and paternal forms used for hybridization and send them to breeding centers. Most varieties of durum wheat are developed with the participation of VIR collections. The international genetic fund of this crop here is fully sufficient for successfully breeding for drought-resistance, rapid maturation and resistance to lodging and to the more dangerous diseases in every zone.

As we have already said, a large quantity of grain procured in the country does not correspond to GOST standards of quality. In connection with this, breeding to improve quality is an especially urgent matter. Although the commercial properties of grain depend greatly on cultivation conditions and on the amount and ratios of fertilizers and irrigation, these properties are still determined by inheritance to a decisive degree. VIR's international collection includes varieties of durum wheat which are characterized by the highest commercial characteristics.

High-quality varieties of durum wheat must contain an elevated percentage of protein in the grain--the nutritive value of macaroni depends on this directly. Protein with a large content of an irreplaceable amino acid--lysine--is especially valuable. A study of the rich genofund of durum wheat enables us to make recommendations to breeders as regards source material for forms of durum wheat that will deal with this problem.

Great difficulties have arisen in developing durum wheat varieties in connection with the recent increase in susceptibility of durum wheat to loose smut. The extensive and varied material studied within the experimental network of VIR and other breeding institutions have enabled us to single out forms of durum wheat that are completely resistant to loose smut. Among them are individual varieties from the USA, Canada, Italy and Mexico, and of native varieties--Melyanopus-12, Saratovskaya-31 and Gordeiforme-3.

With the addition of short-stemmed durum wheats to VIR's collection from various countries we have an increased opportunity to develop varieties of a more intensive type, including for irrigation conditions as well. The high level of productivity of Italian, Mexican and Canadian varieties is often combined with resistance to brown and stem rust, a high protein content in grain, a short stem and other valuable properties. The sources of economically-valuable characteristics, singled out on the basis of comprehensive studies, are grouped into sets with regard to specific zones for cultivating durum wheat and are then sent to the corresponding breeding centers.

The genofund for durum wheat, historically developed under relatively homogenous conditions of the Mediterranean, can be enriched by means of hybridization not only with spelt wheat and soft wheat, which are used fairly actively in crossbreeding, but with other types of wheat as well. Soviet breeders have at their disposal the largest collection of durum wheat in the world, totalling about 7,000 samples from all of the countries of the world, as well as of other wheats.

During the last two decades there has been a noticeable change in the breeding of soft wheat in the country. However, the same cannot be said for durum wheat--as compared to the soft wheat, insufficient resources were evidently allocated to work with it. This refers even to the leading breeding institutions--the Volga Breeding Center, the Kuybyshev Scientific Research Institute of Agriculture and the Krasnokutskaya Breeding Station, where sufficiently-good laboratories do not yet exist.

Noticeable lags in breeding work with durum wheat have resulted from the absence of long-term programs in some breeding centers, or from inadequate material resources to carry out programs if they do exist. To rapidly eliminate this problem, special divisions or laboratories should be created in the corresponding breeding centers to work with durum wheat, and in places where such laboratories exist they should be better equipped and the necessary resources, equipment and machines should be allocated to them.

It would also be useful to organize specialized enterprises for seed farming and grain production of durum wheat in regions where this crop is cultivated

most. In order to expand the area in durum wheat in Western Siberia, seed-farming work with this crop should be reestablished in Omsk and Novosibirsk oblasts and strengthened in Kurgan Oblast and Altay Kray. It is also important to raise the general level of agrotechnology of durum wheat, particularly in the variety cross-section. And stricter controls must definitely be introduced with regard to the production and storage of durum wheat seed during all stages of work with this crop.

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TILLING AND CROPPING TECHNOLOGY

BRIEFS

NEW SPRING WHEAT VARIETY--Kurgan--Kurgan breeders have supported, in a business-like manner, the striving of farmers to increase the productivity of wheat fields and to improve the quality of grain. After successfully undergoing state testing the Kurganskaya-1 strong wheat variety was regionalized in the oblast. It is being successfully included in systems of cultivating the main grain crop according to intensive technology, which is being widely introduced in the Transurals. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian
29 Mar 85 p 1] 8228

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